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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ACCENTURE CHICAGO 28164
BRINKS HOFER GILSON & LIONE
P O BOX 10395
CHICAGO, IL 60610

EXAMINER

CAO, DIEM K

ART UNIT PAPER NUMBER

2126

DATE MAILED: 03/05/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/705,577

Applicant(s)

KLEMM ET AL.

Examiner

Diem K Cao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18,20-37,39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18,20-37,39 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is in response to the amendment filed on 12/15/2003.
2. Claims 1-18, 20-37, and 39-40 remain in the applications. Applicant has amended claims 1, 20, 23, 26, 27 and 39 and cancelled claims 19 and 38.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10, 14, 18, 21-31, 35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheard et al. (U.S. 6,208,345 B1).
5. **As to claim 1**, Sheard teaches identifying the disparate components that require integration (Application #1, Application #2, Application #3, Application #4; Fig. 1 and col. 6, lines 48-59), selecting from an integration framework (visual integration system; col. 16, line 44-56) an integration layer for integrating the disparate components (business extension module; col. 16, lines 57-67), wherein the integration layer is selected from a plurality of integration layers including a presentation integration layer (business extension module #1; col. 16, line 57 – col. 17, line 7), an application integration layer (business extension module #7; col. 17, line 66 – col. 18, line 17), an environment integration layer (business extension module #5 and #6; col. 17,

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lines 45-65), a content integration layer (business extension module #2; col. 17, line 8-14) and a network integration layer (business extension module #3, #4, #7; col. 17, lines 25-44), and integrating the disparate components after selecting the integration layer (the visual interface ...during configuration; col. 19, line 6 - col. 22, line 22).

6. Although Sheard does not explicitly teach the network integration layer provides for foreign protocol integration for converting a node and a protocol translation service for converting a protocol, Sheard teaches each application has different data type, and for each data type includes an informational content component and a format component, wherein the format component may be defined to include protocol (col. 7, lines 44-65), there is an adapter for each application that convert the content of data from one format to the common format, and from the common format to an expected format (fig. 1 and The adapter 34b ... with Application #2; col. 8, lines 25-43), inherently, Sheard teaches the network integration layer provides for foreign protocol integration for converting a node. Sheard further teaches the business extension module #7 provides data convergence/compounding, data exchange common object converters (col. 17, line 66 – col. 18, line 17).

7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve the system of Sheard to providing adapter to convert the protocols between applications because it provides a method for dissimilar applications to share data/services.

8. **As to claim 2**, Sheard teaches mapping data from a first application into a format usable

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by a second application (data includes an information and a format component, Applications #2, #3, and #4 require selected portions of ... content 'A'; col. 7, line 44 - col. 8, line 24), and translating messages from the first application into a format usable by the second application (The adapter 34b ... with Application #2; col. 8, lines 25-43).

9. **As to claim 3**, Sheard teaches delivering a translated message form the first application to the second application (Applications #2, #3, and #4 require selected portions of ... content 'A'; col. 7, line 44 - col. 8, line 24 and Fig. 1 and the converted data ... to its corresponding OSS; col. 14, lines 26-43).

10. **As to claim 4**, Sheard teaches (col. 19, lines 26-39) translating the message includes utilizing a service that may be selected from the group consisting of an E-mail translation service (Email 538), an electronic data interchange translation service (Fax 542). Although Sheard does not teach an object request broker translation service, and a transaction processing translation service, Sheard suggests different type of applications and data are supported (col. 6, lines 48-59). It would have been obvious an object request broker translation service and a transaction processing translation service could be added as adapters in the system of Sheard because they support distributed applications.

11. **As to claim 5**, Sheard teaches (col. 8, lines 18-43) translating messages from a first application format of the first application to a central switch message format (the adapter 34a ... generic form), and thereafter translating the central switch message format to a second

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application format of the second application (The adapter 34b reformulates ... with Application #2).

12. **As to claim 6**, Sheard does not teach wherein utilizing the Email translation service further includes utilizing a gateway to directly translate messages from a first application format of the first application to a second application format of the second application. However, Sheard suggests utilizing a gateway to directly translate messages from a first application format of the first application to a second application format of the second application (a typical custom gateway ... systems #1 and #2; col. 1, lines 29-45). It would have been obvious to modify the system of Sheard bases on his suggestion because it provides a faster translation message between applications.

13. **As to claim 7**, Sheard teaches (col. 14, line 66 - col. 14, line 38) utilizing the electronic data interchange translation service further includes processing at least one transaction by the first application (when a data exchange transaction is initiated), translating the processed transaction using electronic data interchange translation (packed into a specified structure having a format and name ... data source), and sending the translated and processed transaction to the second application (the external data packet is transmitted to the ... data source).

14. **As to claim 8**, Sheard teaches selecting the content integration layer to integrate content sources into the network includes sharing content among a first application and a second application on the network (data integration architecture ... the two disparate applications; col.

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11, lines 12-42).

15. **As to claim 9**, Sheard teaches multiple applications can connect to and modify a common database (col. 11, lines 12-42). Although Sheard does not teach a plurality of applications inserting data into a common database, updating data in the common database, and deleting data from the common database, inherently, the system of Sheard supports the insert, update, and delete functionality from multiple applications.

16. **As to claim 10**, Sheard teaches (col. 17, lines 14- 24) utilizing a service (adapter) that may be selected from the group consisting of SQL gateway services (adapters certified with Oracle and SQL server), adapters for any ODBC, and adapters for X/Open.XA. However, Sheard does not teach multi-media gateway services, non-relational database gateway services, and web gateway services. Because system of Sheard can support legacy applications and data (col. 10, lines 40-58), it would have been obvious to one of ordinary skill in the art to implement different type of adapters because it provides the users with methods to support any type of data and applications.

17. **As to claim 14**, Sheard teaches selecting the environment integration layer includes integrating disparate environments by selecting one of component translation (conversion of single user to multiple user distributed applications, ActiveX interfacing; col. 17, lines 45-55), operating system emulation (set of components and adapters ... of any system or interface; col. 18, lines 25-40) and security integration (security control adapter; col. 17, lines 57-65).

18. **As to claim 18**, Sheard teaches selecting the network integration layer to integrate disparate network includes establishing a logical connection between a first node of a first network and a second node of a second network (for distribution purposes, the socket solution is preferred; col. 29, lines 12-31). However, Sheard does not explicitly teach maintaining the logical connection between the first node and the second node, terminating the logical connection between the first node and the second node after accessing information form the second node of the second network. It would have been obvious to one of ordinary skill in the art the logical connection must be maintained between the first and the second nodes during communication and terminate afterward.

19. **As to claim 21**, Sheard teaches selecting the presentation layer to integrate different systems includes capturing user actions (selection of business extension module by the user; col. 19, lines 15-25), generating a resulting event based on the actions (results in displaying ... extension module; col. 19, lines 15-25), presenting data to the user based on the resulting event (results in displaying ... extension module; col. 19, lines 15-25), and assisting in managing a dialog flow of processing between the user and the network (contents of Legacy-to-Internet ... HTMLFormatter; col. 19, lines 15-25 and after two or more adapters ... to the destination adapter; col. 23, lines 20-34).

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20. **As to claim 22**, Sheard teaches (col. 16, line 57 – col. 17, line 14) the presentation integration layer includes selecting a service from the group of screen scraping (screen scraper adapters) and terminal emulation (Web adapters, file adapters, script adapters).

21. **As to claim 23**, see rejections of claims 1 and 4 above.

22. **As to claims 24 and 25**, see rejections of claims 6 and 7 above.

23. **As to claim 26**, see rejection of claims 1 and 10 above.

24. **As to claim 27**, Sheard teaches a presentation integration layer to integrate computer-user interfaces (business extension module #1; col. 16, line 57 – col. 17, line 7), an application integration layer to integrate at least one application message between a first application and a second application (business extension module #7; col. 17, line 66 – col. 18, line 17), an environment integration layer to provide sign-on security to the computing network (business extension module #5 and #6; col. 17, lines 45-65), a content integration layer to provide for sharing of content between the first application and the second application (business extension module #2; col. 17, line 8-14), and a disparate network integration layer to connect a first node of a first network and second node of a second network (business extension module #4; col. 17, lines 25-44), wherein the layers cooperate to integrate disparate components (Application #1, Application #2, Application #3, Application #4; Fig. 1 and col. 6, lines 48-59) into the

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computing network in a way that appears transparent to a user (the visual interface ... during configuration; col. 19, line 6 - col. 22, line 22).

25. Although Sheard does not explicitly teach the network integration layer provides for foreign protocol integration for converting a node and a protocol translation service for converting a protocol, Sheard teaches each application has different data type, and for each data type includes an informational content component and a format component, wherein the format component may be defined to include protocol (col. 7, lines 44-65), there is an adapter for each application that convert the content of data from one format to the common format, and from the common format to an expected format (fig. 1 and The adapter 34b ... with Application #2; col. 8, lines 25-43), inherently, Sheard teaches the network integration layer provides for foreign protocol integration for converting a node. Sheard further teaches the business extension module #7 provides data convergence/compounding, data exchange common object converters (col. 17, line 66 – col. 18, line 17).

26. It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve the system of Sheard to providing adapter to convert the protocols between applications because it provides a method for dissimilar applications to share data/services.

27. **As to claims 28-29**, see rejections of claims 2-3 above.

28. **As to claim 30**, see rejection of claim 4 above.

29. **As to claim 31**, see rejections of claim 10 above.

30. **As to claim 35**, see rejection of claim 14 above.

31. **As to claim 37**, see rejection of claim 18 above.

32. Claims 11-12 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheard et al. (U.S. 6,208,345 B1) in view of Bordersen et al. (US 2002/0035577 A1).

33. **As to claim 11**, Sheard does not teach selecting the content integration layer to integrate content sources into the network includes replicating content for a first application and a second application on the network. Bordersen teaches integrating the content sources into the network includes replicating content for a first application and a second application on the network (central database 3, nodes 21-a, 21-b, 21-c, partial databases 23-a, 23-b, 23-c; page 3, 0028-0036). It would have been obvious to apply the teaching of Bordersen to the system of Sheard because it provides methods not to replicate full database at each client site and replication may be easily changed without requiring a refresh of the entire replicated database.

34. **As to claim 12**, Sheard does not teach considering an amount of content to be replicated and selecting one of an extract data replication service or a capture data replication service depending on the amount identified. Bordersen teaches considering an amount of content to be

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replicated and selecting one of an extract data replication service or a capture data replication service depending on the amount identified (steps to be performed by log manager to prepare a partial transaction log; page 6, 0066 – page 8, 0098). It would have been obvious to apply the teaching of Bordersen to the system of Sheard because it permits updates to be coordinated among users of the central database and users of the partially replicated databases.

35. **As to claims 32-33**, see rejections of claims 11-12 above.

36. Claims 13 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheard et al. (U.S. 6,208,345 B1) in view of Bordersen et al. (US 2002/0035577) further in view of Dao et al. (U.S. 5596744).

37. **As to claim 13**, Sheard does not teach replicating content includes utilizing services that may be selected from the group consisting of content capture services, content conversion services, content load services, coordination services, and transport content services. Bordersen teaches (page 5, 0053 – page 6, 0065) content capture services (update manager), content load services (update manager, merge processor), coordination services (merge processor), and transport content services (Docking manager). However Bordersen does not teach a content conversion service. Dao teaches a content conversion service (The Execution Plan Generator 20 translate ...an extension of SQL; col. 6, line 65 – col. 7, line 3). It would have been obvious to apply the teaching of Dao to the system of Sheard and Bordersen because it enables users of heterogeneous databases to share data.

38. **As to claim 34**, see rejection of claim 13 above.

39. Claims 15-17 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheard et al. (U.S. 6,208,345 B1) in view of Mears et al. (U.S. 6,041,3362).

40. **As to claim 15**, Sheard does not teach setting up an alternate security server to guard against a primary security server of the security integration from failing. Mears teaches setting up an alternate security server to guard against a primary security server of the security integration from failing (HTTP server; col. 4, lines 13-40 and col. 1, lines 26-56). It would have been obvious to apply the teaching of Mears to the system of Sheard because it provides a method to simplify the security of many different applications and different platforms.

41. **As to claim 16**, Sheard teaches (col. 17, lines 57-65) the security integration may be selected from the group consisting of scripting (encrypted transaction), user verification and access authorization. However, Sheard does not teach centralized log-in systems and a combination of scripting and centralized log-in systems. Mears teaches the security integration may be selected from the group consisting of scripting (encrypted password), centralized log-in systems (the user may log in and enter a single password; col. 5, line 10 – col. 6, line 65) and a combination of scripting and centralized log-in systems (single password, encrypted password; col. 6, lines 40-65).

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42. **As to claim 17**, Sheard does not teach wherein selecting the combination of scripting and centralized log-in system further includes authenticating with the primary security server in conjunction with scripting in order for a system user to obtain rights to run a script. Mears teaches wherein selecting the combination of scripting and centralized log-in system further includes authenticating with the primary security server in conjunction with scripting in order for a system user to obtain rights to run a script (the integration application ... Add Member CGI program; col. 5, lines 10-36)

43. **As to claim 36**, see rejection of claim 16 above.

44. Claims 20 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheard et al. (U.S. 6,208,345 B1) in view of Doviak et al. (U.S. 6,418,324 B1).

45. **As to claim 20**, Sheard does not teach the protocol translation services may be selected from the group consisting of network layer integration and data link layer integration. Doviak teaches the data is converted from one type of protocol to another type of protocol (col. 9, lines 4-44), Networking layer and Data-Link layer (col. 38, lines 49-64). It would have been obvious to apply the teaching of Doviak to the system of Sheard because it provides a method for transparent communication between devices and network.

46. **As to claim 39**, see rejection of claim 20 above.

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47. As to claim 40, see rejection of claim 22 above.

Response to Arguments

48. Applicant's arguments with respect to claims 1-18, 20-37, and 39-40 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

49. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K Cao whose telephone number is (703) 305-5220. The examiner can normally be reached on Monday - Thursday, 9:00AM - 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

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Diem Cao


MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100